DISTRIBUTION OF BEAN SEED TYPES IN EASTERN AFRICA

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A bean database has been developed for Africa. Ninety five bean production areas have been defined and characterized for four environmental variables, five production systems variables, 11 socio-economic variables, 14 diseases, eight insect pests, six abiotic constraints and the distributions of nine major bean seed types. This paper presents information on the relative importance of categories of major bean seed types in Eastern Africa. Breeders should find the information useful when seeking germplasm of a given seed type, and when targeting germplasm. Organizations that provide seed relief to disaster affected areas can use the information to identify seed sources for the types that are commonly grown in the affected area.

Eastern Africa (north of 6°S latitude) is estimated to have 2.5 million hectares of bean production annually. The greatest concentrations of bean production are in Rwanda, Burundi, Eastern Zaire, the Highlands of Kenya, Mt. Elgon in Uganda, and the Rift Valley and Eastern Highlands of Ethiopia (Map A).

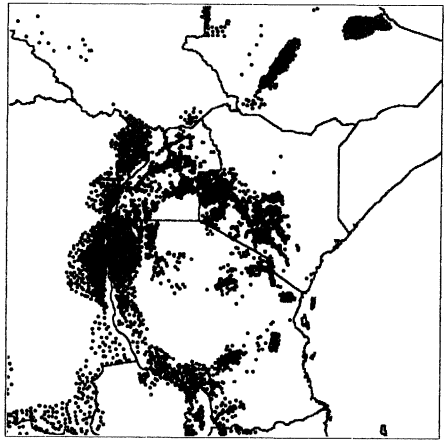
The Calima, or Rose Coco, seed type is the most important type in Eastern Africa (Map B). Red seed types, as well as yellow or brown types, are also important (Maps C-D). Navy beans are of major importance, often for export, in some production areas such as in Ethiopia. The category which includes pinto, carioca and speckled sugar beans are less important in Eastern Africa than in Southern Africa, especially with commercial farmers in South Africa. Black seed types are of moderate importance in N. Uganda, S. Sudan and S. Ethiopia; these, although not widely popular, are noted for high yield potential and tolerance to high temperature.

Table 1. Estimated area ('000 ha) sown annually to nine categories of bean seed types in Eastern and Southern Africa.

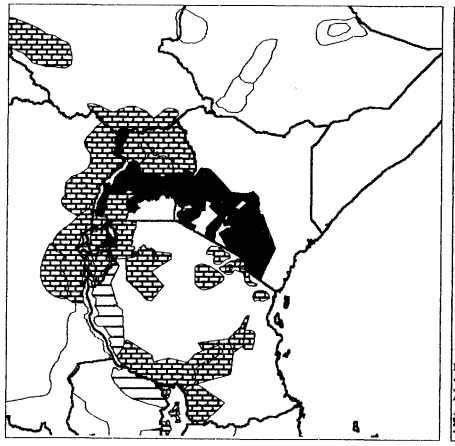
Category	Eastern African	Southern Africa
Calima (Rose Coco)	610	70
Red (Sm & Me)	480	120
Red (Kidney & L)	220	90
Yellow & tan	270	70
Pinto, Carioca	200	90
Navy	180	90
White (L. & Me)	120	70
Purple	140	90
Black	90	20

The Maps. The following maps show the distribution of: (A) bean production, each point equals 500 ha; (B) Calima or Rose Coco types; (C) large red types, including red kidney; (D) small to medium size red or pink seed types; (E) yellow, brown or tan types; (F) Navy, or small white, beans; and (G) pinto and sugar types.

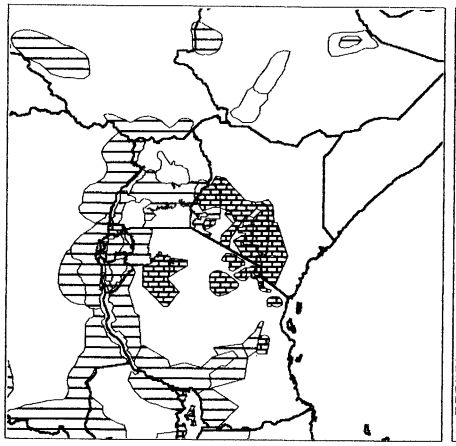
IMPORTANCE OF MAJOR BEAN TYPES IN BEAN PRODUCTION AREAS - E. AFRICA REGION



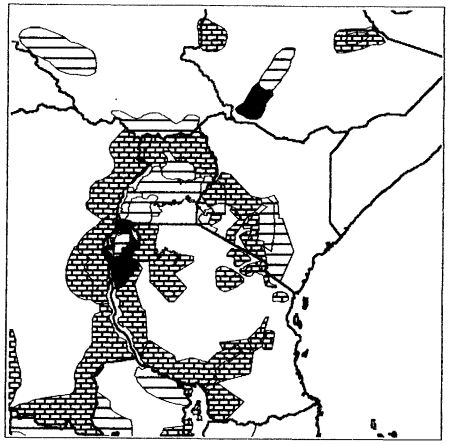
A: Intensity of Bean Production



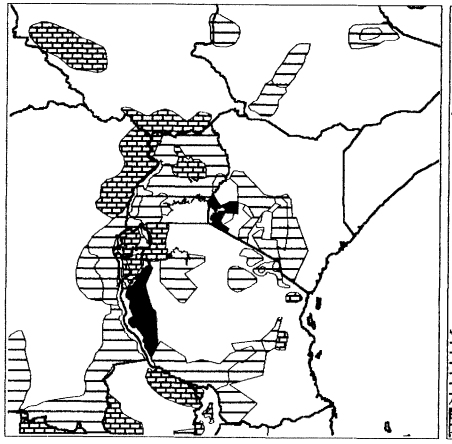
B: Importance of "Calima"



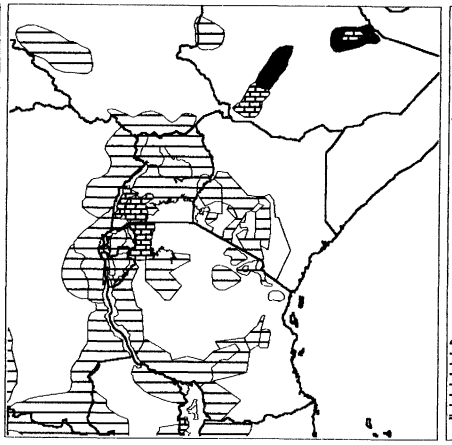
C: Importance of Large red



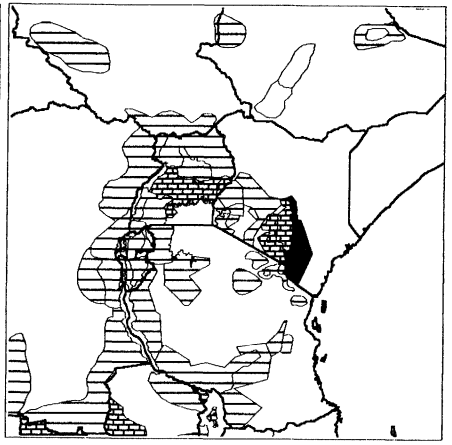
D: Importance of Medium Red



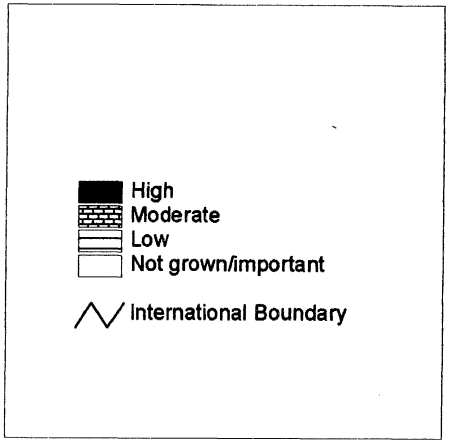
E: Importance of Yellow/Brown



F: Importance of "Navy" Bean



G: Importance of "Pinto"/"Sugar"



H: L E G E N D